

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 05-291152

(43)Date of publication of application : 05.11.1993

(51)Int.Cl. H01L 21/205
G01N 23/223
// H01L 21/203

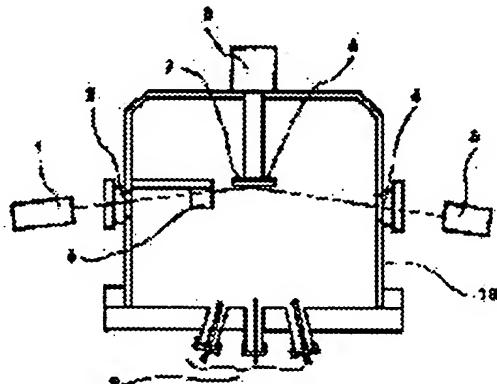
(21)Application number : 04-095144 (71)Applicant : HITACHI LTD
(22)Date of filing : 15.04.1992 (72)Inventor : UCHIDA FUMIHIKO

(54) X-RAY ANALYZER AND SEMICONDUCTOR MANUFACTURING DEVICE USING THE SAME

(57)Abstract:

PURPOSE: To monitor the film deposition process in the local region on a substrate surface within MOCVD(Metal Organic Chemical Vapor Deposition) or ALE(Atomic Layer Epitaxy) wherein a film is to be deposited at the pressure exceeding 10-3Torr using a gas source material.

CONSTITUTION: Within a MOCVD device, a substrate 6 surface is irradiated with the X-rays emitted from a beam source 1 using focussing mirror 3 at an oblique incident angle close to critical total reflection angle. At this time, the X-ray signals transmitted from the substrate 6 surface are detected using an X-ray detector 5. Accordingly, the state of a deposited film on the substrate 6 surface can be monitored by a high lateral resolving power even at the pressure exceeding 10-3Torr thereby enabling the pertinent deposition process requirements to be decided meeting the deposition requirements.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]